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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,436	09/04/2001	Jin-Yuan Lee	MEG00-007	2705

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EXAMINER

PHAM, THANHHA S

ART UNIT	PAPER NUMBER
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2813

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/945,436

Applicant(s)

LEE ET AL.

Examiner

Thanhha Pham

Art Unit

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-- The MAILING DATE of this communication appears on the cov r sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 5-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action responds to Applicant's Election on Paper No. 5 dated 8/6/03.

Election/Restrictions

1. Claims 5-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **with** traverse in Paper No. 5.
2. Applicant's election with traverse of claims 1-4 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that examination should be conducted to both the process invention I and product invention II because the process claims are directed to a method for fabricating a planar inductor and the product claims are directed to a planar inductor. This is not found persuasive because the process invention I and the product invention II are distinct when the product invention II can be made by another and materially different process, for example, etching completely penetrating through the substrate instead of using the two steps of cutting and removing the substrate material. Furthermore, since the process invention I and the product invention II acquired a separate status shown by their different classification, restriction for examination purposes is proper.

Regarding to Applicant's traverse to the species restriction, Applicant requests the field of search must necessarily cover both species to provide a complete and adequate search. The election with traverse to the species is not persuasive because

the two species are patentability distinct that requires different considerations and searches. Should applicant traverse on the ground that the species are not patentability distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Based on what being discussed above, the restriction requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

➤ With respect to claim 1,

lines 4-7, "providing a substrate having a first and a second surface, active devices with conductive interconnects being covered by a layer of passivation having been created over the surface of said substrate" renders the claim indefinite. It is not clear that "the surface of said substrate" is the first surface of substrate OR the second surface of said substrate.

lines 8-9, "the surface of said layer of passivation" lacks antecedent basis.

lines 14-17, "removing substrate material from a passive region in the second surface of said substrate, exposing at least one bond pad created on the surface of said passivation region on each side of said scribe line" renders the claim indefinite. It is not clear where 'said scribe line' comes from and is located.

➤ With respect to claim 2,

line 2, it is not clear that "a first and a second surface" as cited in claim 2 of line 2 is the same or different to "a first and a second surface" as cited in claim 1 of line 4.

line 18, it is not clear that "a layer of passivation" is the same or different to "a layer of passivation" as cited in claim 1 of lines 5-6.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1, as being best understood, is rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al [US 5,910,687].

Chen et al, figs 3's-37 and col 1-23, discloses the claimed method for fabricating planar inductor in high performance high-frequency semiconductor circuits, comprising the steps of:

providing a substrate (300, fig 6, col 6-9) having a first and a second surface (bottom and top surfaces), active devices (301, col 7 lines 16-41) with conductive interconnects (integrated circuits) being covered by a layer of passivation (304) having been created over the second surface (top surface) of said substrate, said active devices having been created in or on active surface regions in the second surface of said substrate, said active surface regions being separated by a passive surface region (region below the trench 303), a scribe line (311, figs 4-6) having been provided across said passive surface region, at least one bond pad (305) having been provided in said passive surface region on each side of said scribe line;

attaching a glass panel (306, fig 7) to a surface of said layer of passivation (304);

cutting the first surface of said substrate, said cutting being aligned with a passive region in said second surface of said substrate, said cutting not completely penetrating through said substrate (fig 9, col 9 lines 60-67: when a first portion of the substrate material 300 on the first surface (bottom surface) is cut but the cutting step does not reach to expose the bond pad 305)

removing substrate material from the passive region in the second surface of said substrate, exposing at least one bond pad (305, fig 9, col 9 lines 60-67: when a second portion of the substrate material 300 on the second surface is removed after the first portion of the substrate material being cut) created on the surface of said passive region on each side of said scribe line; and

cutting said glass panel in alignment with said scribe line (311, fig 13a, col 12 lines 18-67).

Allowable Subject Matter

5. Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: It is not obvious for those skilled in the art to suggest or request the method for fabricating a planar inductor in high performance high frequency semiconductor circuits comprising combination of steps of:

providing a substrate having a first surface and a second surface, active devices with conductive interconnects having been created in or on active surface regions in the second surface of said substrate, said active surface regions being separated by a passive surface region, a scribe line having been provided across said passive surface region, a layer of insulation having been provided over the surface of said active regions, at least one bond pad having been provided in said passive surface region on each side of said scribe line, a layer of dielectric having been deposited over the surface of said layers of insulation and over said passive surface region separated by said scribe line;

creating at least one planar inductor on the surface of said layer of dielectric on each side of said scribe line, said at least one planar inductor overlying said passive surface region of said substrate;

depositing a layer of passivation over the surface of said layer of dielectric separated by said scribe line, said layer of passivation covering said conductive interconnects over the second surface of the substrate;

attaching a glass panel to a surface of said layer of passivation (304);

cutting the first surface of said substrate, said cutting being aligned with the passive region in said second surface of said substrate, said cutting not completely penetrating through said substrate;

removing substrate material from the passive region in the second surface of said substrate, exposing the at least one bond pad created on the surface of said passive region on each side of said scribe line; and

cutting said glass panel in alignment with said scribe line.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhha Pham whose telephone number is (703) 308-6172. The examiner can normally be reached on Monday-Thursday 8:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr., can be reached on (703) 308-4940. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Thanhha Pham


CARL WHITEHEAD, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800